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PHOTOGRAPHS AND DESCRIPTIONS OF CUP-FUNGI—IV. PEZIZA CLYPEATA

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(WITH PLATE 191, CONTAINING 2 FIGURES)

Among the fleshy cup-fungi, there are few which have been the subject of more confusion and misunderstanding than *Peziza clypeata* Schw. The species was originally described by Schweinitz from material collected in North Carolina.

A specimen collected October, 1883, by the late A. P. Morgan was sent to Mr. J. B. Ellis with the following note: "I enclose what I take to be *Peziza clypeata* Schw. Do you find this species? The substance is quite thick and firm; it spread out flat upon the wood; it grows on old rotten logs with a damp smooth surface." A note appended to this specimen apparently by Mr. Ellis states,—"probably = N. A. F. 568." This number had already been distributed under the name of *Psilopezia nummularia*. From this time the two species seem to have been confused.

In the "Discomycetes of the Miami Valley," Mr. Morgan¹ in referring to *Peziza clypeata* Schw. says: "I had always taken this for *Psilopezia nummularia* until I got Massee's work." In the same paper, referring to *Psilopezia nummularia*, he says: "Although the type of this species was sent from Cincinnati by Mr. Lea, I do not appear to have collected it, my specimens examined by Mr. Massee being pronounced *Peziza adnata* B. & C." Mr. Morgan, in the same paper, regarded this as a synonym of *Peziza clypeata* Schw. which it undoubtedly is, if Massee was correct in his determination of the Ohio specimen. *Peziza adnata*, a tropical plant described from Cuba, is said to have rough spores. This may be due to faulty observation, for the two species agree perfectly in other characters. At any rate, *Peziza clypeata* and *Peziza adnata* have come to be regarded as synonyms.

Although Mr. Morgan says that he had always regarded his

¹ Jour. Myc. 8: 189. 1902.

Ohio plants as *Psilopezia nummularia* Berk. until Masee's work caused him to change his mind, the letter referred to above written in 1883 by his own hand shows that he originally suspected that this was Schweinitz's plant and he was doubtless misled by the wrong determination of plants distributed by Mr. Ellis.² In his later paper on the "Discomycetes of the Miami Valley," it will be noted that his early suspicions were confirmed. To Mr. Morgan, therefore, probably belongs the credit of having worked out the identity of *Peziza clypeata* Schw.

In 1879, Dr. Peck redescribed this plant as *Bulgaria bicolor*. Later having apparently decided that it was not a *Bulgaria*, he transferred it to the genus *Peziza*. The specific name was untenable in this genus since it was preoccupied and the name *Peziza orbicularis* was used. I have examined the type of this species and find it identical with *Peziza clypeata*.

With the single exception of the specimen sent to Mr. Ellis in 1883, all of the plants of this species which have been studied in our collection—and the species has been collected frequently—have been called *Psilopezia nummularia* Berk, or *Peziza orbicularis* Peck. The object of the present paper is to call attention to the identity of the plant and its synonyms.

Except for a slight difference in the color of dried plants, *Psilopezia juruensis* P. Henn. does not seem to differ. Specimens of this species from South America have been examined.

The fact that these plants occur on much decayed wood renders it difficult to determine its substratum with certainty. Dr. Peck reports his plants on decaying birch. Our own appeared to be growing on decaying soft maple. In most cases the plants are reported simply on rotten wood.

While *Psilopezia nummularia* Berk. is usually regarded as a distinct species, there is enough similarity between the two to partly justify the confusion which has existed. The two are similar in spore characters and color. Both are adnate to the wood on which they grow. In *Psilopezia nummularia*, however, the plants appear to be smaller—they were originally described as one third of an inch in diameter—and always entirely adnate and surrounded by a white mycelial border. The margin

²North American Fungi 568

appears never to be elevated in young plants as it is in *Peziza clypeata* Schw. *Psilopezia nummularia* has not been so frequently collected and probably for this reason its characters are not so well known.

The following description of *Peziza clypeata* Schw. is based on a study of fresh plants which have been collected and studied for the past three or four seasons. Colored sketches of the plants in all stages have also been preserved. The accompanying illustrations were made from fresh plants and show both the old and young stages of development.

- PEZIZA CLYPEATA Schw. Schr. Nat. Ges. Leipzig 1: 117. 1822
Peziza adnata Berk. & Curt. Jour. Linn. Soc. 10: 365. 1868.
Bulgaria bicolor Peck, Ann. Rep. N. Y. State Mus. 32: 49. 1879.
Peziza orbicularis Peck, Bull. N. Y. State Mus. 2: 20. 1887.
Discina adnata Sacc. Syll. Fung. 8: 100. 1889.
Discina clypeata Sacc. Syll. Fung. 8: 101. 1889.
Discina orbicularis Sacc. Syll. Fung. 8: 103. 1889.
? *Peziza Barlaeana* Bres. Fungi Trident. 2: 74. 1892.
Psilopezia juruensis P. Henn. Hedwigia 43: 273. 1904.
? *Pachyella Barlaeana* Boud. Hist. Class. Discom. Eu. 50. 1907.
Psilopezia orbicularis Dodge, Trans. Wisc. Acad. Sci. 17: 1052.

1913.

Apothecia gregarious but not usually crowded, at first globose, gradually opening, soon becoming shallow cup-shaped, later discoid, regular in outline or occasionally more or less distorted when old, becoming closely adnate to the substratum to the extreme margin or with a narrow margin free and slightly upturned, varying in size from a few mm. when young to 3 or 4 cm. when mature; hymenium at first dark reddish brown, smooth and glistening, later assuming an olive tint and losing its luster, when old greenish-black (almost entirely black when dried), splitting in old specimens, giving rise to whitish vein-like markings, the splitting due to the unequal shrinkage of the apothecium and the substratum, substance soft, inclined to waxy; asci cylindric, reaching a diameter of 17μ , often spirally twisted when dry; spores 1-seriate, ellipsoid, smooth, hyaline, with 1 or 2 large oil-drops, $12-14 \times 25-27$, or rarely $30-33\mu$; paraphyses adhering together, septate, strongly enlarged above, reaching a diameter of 7 or 8μ , densely filled with yellowish-brown coloring matter.

On much decayed deciduous logs of various kinds which are saturated with water.

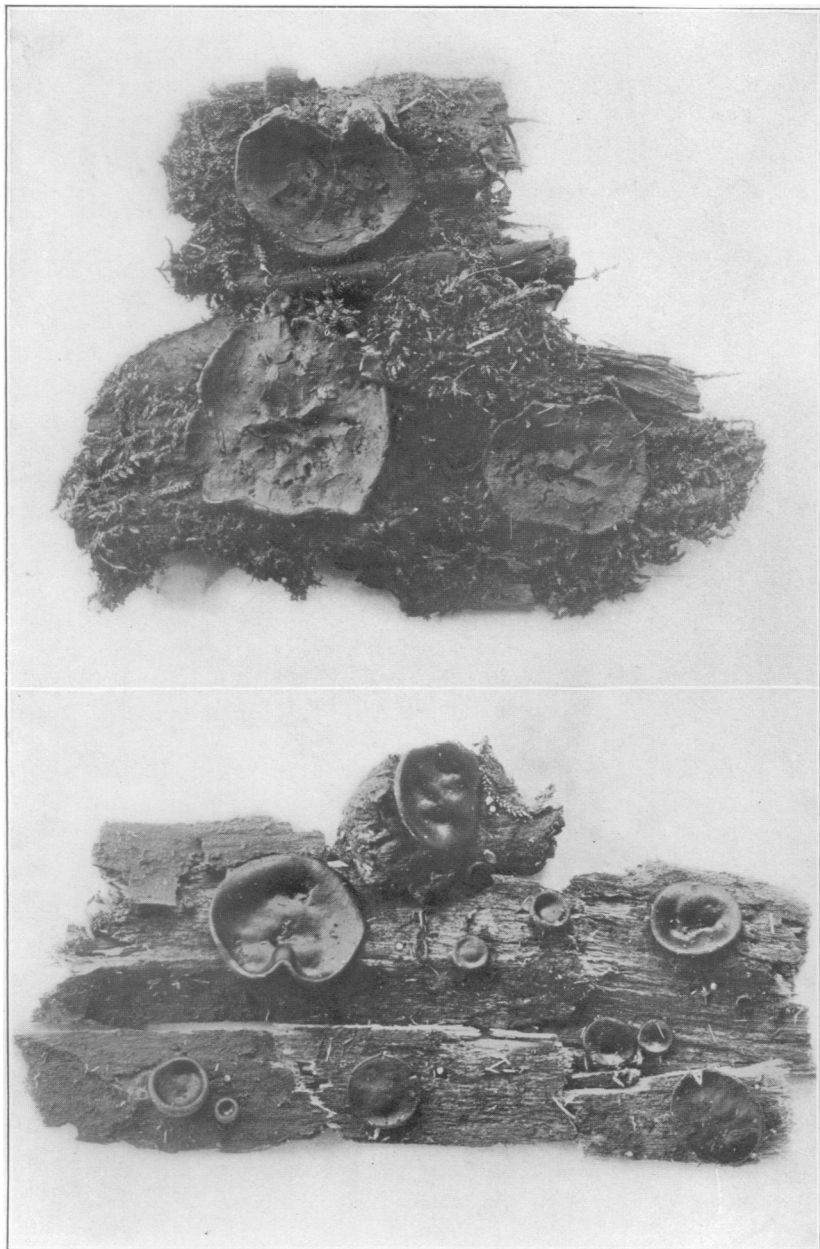
TYPE LOCALITY: North Carolina.

DISTRIBUTION: New York to Wisconsin, North Carolina and Cuba; also in South America.

ILLUSTRATIONS: Peck, Bull. N. Y. State Mus. 2: *pl.* 2, *f.* 4-6; Hedwigia 43: 273, *f.* 1-3: (?) Boud. Ic. Myc. *pl.* 310; (?) Bres. Fungi Trident, *pl.* 187.

EXSICCATI: Ellis, N. Am. Fungi 568 (as *Psilopezia nummularia* Berk.).

NEW YORK BOTANICAL GARDEN.



PEZIZA CLYPEATA SCHW.